REMARKS

The claims are 22 to 42.

Claims 22 to 26, 28, 30, 33 to 35 and 37 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Nolte et al. (U.S. 4,104,427) in view of Van Den Bergen '862.

Claims 28, 29, 36, 38 and 40 to 42 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Nolte et al. (U.S. 4,104,427) and Van Den Bergen '862 as applied above, and further in view of Takasi et al. (WO 98/36325).

Claims 31 and 32 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Nolte et al. (U.S. 4,104,427) and Van Den Bergen '862 as applied to claim 1 above, and further in view of Takahashi (U.S. 4,126,593) and Wu et al. (U.S. 5,460,872).

These rejections are respectfully traversed.

The present claims are directed to a method of producing a flame retardant translucent laminate by placing a flame retardant, radiation curable composition between glass panes and curing the composition by irradiation (claims 22 to 32), the flame retardant light-transmitting laminate produced by the above method (claim 33), a radiation curable composition for producing said laminate (claims 34 to 40) and a composition obtained by radiation curing of said composition (claims 41 and 42).

Nolte et al. relates to a laminated light-transmitting fire screening panel with outer plies and intumescent material sandwiched between them.

There is nothing in Nolte et al. relating to any radiation curable intermediate material to be employed in the laminate.

Why then would a reader of Nolte et al. consult Van Den Bergen amongst any of the very many possible flame retardant compositions that could have been selected? The rejection is using hindsight to arrive at this selection and not a fair reading of what an art-skilled reader of Nolte et al. would do.

Indeed, as Van Den Bergen is not concerned with providing transparent layers, a reader of Nolte et al. would not have been motivated to use the type of flame retardant polymers described in Van Den Bergen within the glass laminates described in Nolte et al.

The major thrust of the teachings of Nolte et al. is in the design of a novel laminate structure. Nolte et al. teaches that it is this new design which imparts the desired performance rather than the particular properties of the materials used. There is little incentive for a reader of Nolte et al. to try new materials with this structure, as they are not needed.

The rejection states that Van Den Bergen discloses that the intumescent material such as that proposed by Nolte et al. is inferior because additives can migrate through the coating to the surface which can lead to blooming and because additives may discolor the composition.

In reply, even if a reader of Nolte et al. were aware of the problem of blooming, the rejection assumes that applying any UV cured coating (such as those described in Van Den Bergen) will solve the problem of blooming, but this is not the case nor has any evidence been offered in the Official Action to the contrary.

Thus, it is unobvious for a reader of Nolte et al. to select the generic UV curable coatings of Van Den Bergen to address this problem of Nolte et al.

Starting from Van Den Bergen

Van Den Bergen is not concerned with providing flame retardants that are necessarily clear. Nor is it concerned with providing a flame retardant which is a laminate. Indeed, Van Den Bergen teaches that the retardants are used as coatings rather than as laminate adhesives. Although Van Den Bergen does indeed teach that additives are inferior, Van Den Bergen is concerned with a different, more general problem of flame retardancy. Why would a reader of Van Den Bergen cross-reference Nolte et al. which relates to a redesign of a laminate structure when one advantage of Van Den Bergen is that the retardants disclosed do not need to use such a structure?

Cross-referencing other documents

It is even less credible that a reader of either Nolte et al. or Van Den Bergen, either alone or in combination, would import features from Takasi et al. Merely combining features from

three or more documents from different fields and without proper motivation strongly suggests the use of impermissible hindsight.

Takasi et al. (WO 98/36325) teaches use of phosphate containing chemical products for a completely different use (DVD adhesives with higher resistance to corrosion). Why would a reader concerned with flame retardancy even consider this document given that it is in an unrelated field? DVDs are not generally considered flame retardant so there would be a disincentive or no incentive to cross-reference this document. Any teaching about properties suitable for adhesion teaches nothing about the suitability of such materials in flame retardants, no less transparent ones.

The rejection argues that curing in a furnace (taught by Nolte et al.) is the same as thermal curing. But thermal curing and furnace curing are not equivalent. They use different temperatures, are optimized for different chemistries and are not interchangeable. Thus, if Van Den Bergen teaches that thermal curing is equivalent to radiation curing, this actually deters a reader of Nolte et al. from using radiation curing as an alternative to curing in a furnace.

Takasi et al. clearly does not overcome the above-discussed deficiencies of Nolte et al. and Van Den Bergen.

Takahashi et al. (U.S. 4,126,593) teaches coatings that use surface modified inorganic oxides which are not designed for optimum clarity. It is necessary for any oxide or other additives to be compatible with UV curable systems for long term shelf stability. Without the correct modifications to ensure that the inorganic oxide component is compatible with the coating system, particle agglomeration, flocculation, and precipitation can render the system uncoatable, and/or does not achieve the desired performance. Therefore, a reader of Van Den Bergen would be actively deterred from randomly importing additives from other documents, especially where the additives are not optimized or intended for the UV curable system of interest.

Wu et al. (U.S. 5,460,872) teaches the coating of microporous substrates with submicron particles applied from a polymer dispersion.

It is clear that neither Takahashi et al. or Wu et al. overcome the above-discussed deficiencies of Nolte et al. and Van Den Bergen.

Claims 27 and 39 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Nolte et al. (U.S. 4,104,427) in view of Vollkommer et al. (U.S. 4,128,709).

Nolte et al. is discussed above.

Vollkommer et al.

The compositions described in Vollkommer et al., although UV curable and utilizing acrylate chemistry, release HBr when pyrolyzed. Thus, a reader of Nolte et al. seeking intumescent materials would be deterred from using those of Vollkommer et al.

For the foregoing reasons, it is apparent that the rejections are based on an impermissible hindsight reconstruction of the present invention.

Accordingly, the rejections on prior art are untenable and should be withdrawn.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

Hugues VAN DEN BERGEN et al.

By: _____

Matthew M. Jacob
Registration No. 25,154
Attorney for Applicants

MJ/aas
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
May 7, 2008